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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
|-----------------|-------------|----------------------|---------------------|------------------|

10/069,695

08/05/2002

Roy Auerbach

USPL-77

3744

7590

02/16/2005

Maurice M Klee  
Attorney At Law  
1951 Burr Street  
Fairfield, CT 06824

EXAMINER

MAHONEY, CHRISTOPHER E

ART UNIT

PAPER NUMBER

2851

DATE MAILED: 02/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/069,695

Applicant(s)

AUERBACH ET AL.

Examiner

Christopher E Mahoney

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2851

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 06 July 2004.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 and 15-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4, 6, 8, 9, 13, 15, 17 and 19 is/are rejected.
- 7) ☒ Claim(s) 3, 5, 7, 10-12, 16, 18 and 20 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Preliminary Matters***

The examiner has reopened prosecution in order to address formal matters. Additionally claims 8-10 are specifically acted upon in the following Office Action.

### ***Claim Objections***

Claims 1 and 13 are objected to because of the following informalities: It is clear from the applicant's comments that the invention involves holes being at locations which correspond to images formed by the combination of the Fresnel structure and the lenslet array where the images are from the exit pupil of a projection lens. However, claims 1 and 13 read as if the locations are images of the exit pupil of the combination of the Fresnel lens and the lenslet array (and possibly the projection lens as well). Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 6, 8-9, 13 and 19 are rejected under 35 U.S.C. 102(b) as being anticipated by van de Ven (U.S. Patent No. 4,666,248). van de Ven teaches a rear projection screen for a rear projection display comprising a Fresnel lens 20, a lenslet array 17, which may be comprised of anamorphic lenses, apertures 15, and a protective coating layer 11. As discussed in col. 11, lines 31-35, the screen is used with a convention slide or film projector which will have an exit

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pupil from which images will be projected. The projected images then enter the Fresnel lens 20 on the light entering side 12 of the screen. The Fresnel lens changes the light beam projected by the exit pupil from a divergent beam to a collimated beam. (col. 2, lines 40-43). The collimated beam then enters the lenses 17 to be converged at the holes 15. (col. 4, lines 46-49). Thus the holes are at location which correspond to the images of the exit pupil formed by the combination of the Fresnel structure and the lenslet array. As described at col. 1, lines 67 to col. 2, line 2 this is done for the purpose of ensuring "that a maximum amount of light from the primary image-source reaches the viewing space and which minimizes reflections of ambient light to the viewing space." The Fresnel structure, the lenslet array, the opaque layer and the protective layer are arranged as subassemblies with the Fresnel structure in one subassembly and the other elements in a second subassembly as depicted in figure 3a.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 4, 15, and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over van de Ven (U.S. Patent No. 4,666,248) in view of Guzman (U.S. Patent No. 4,184,672). Van de Ven teaches the salient features of the claimed invention except for a square/rectangular aperture. Guzman teaches that round apertures and square/rectangular apertures were art known equivalents. Because they were art known equivalents, it would have been obvious to one of

ordinary skill in the art at the time the invention was made to utilize a square/rectangular aperture instead of a round one for the purpose of creating a desired shape system.

***Allowable Subject Matter***

Claims 3, 5, 7, 10-12, 16, 18 and 20 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed July 6, 2004 have been fully considered but they are not persuasive.

The applicant argues that the holes are at locations of the exit pupil of the projection lens. However this is not what is recited in the claims. The claims recite that the holes correspond to images of the exit pupil formed by the combination of the Fresnel structure and the lenslet array.

The applicant argues that there is no discussion of an exit pupil in van de Ven and therefore does not anticipate the claims. The applicant argues that the Fresnel lens changing the divergent signal beam to a collimated beam has nothing to do with a projected exit pupil. However, as explained in U.S. Patent No. 6,437,914 to Hall, Jr., in col. 9, lines 45-61, the Fresnel lens is provided with a focal length equal to the distance from the exit pupil so as to ensure that the output light beams are parallel. Van de Ven's Fresnel lens outputs the signal beam as a parallel beam. This parallel beam enters the lenticular structure, forms an array of images through the apertures. These images are from the exit pupil.

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The applicant alleges on page 12 of the appeal brief that "van de Ven easily can be operable without satisfying appellant's claimed relationship". The examiner respectfully requests that the applicant explain such a scenario wherein van de Ven can be operable without satisfying appellant's claimed relationship without modifying van de Ven in such a way contrary to the teachings of the van de Ven reference. The examiner believes that such an explanation would be highly beneficial in distinguishing the reference from the claims.

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher E Mahoney whose telephone number is (571) 272-2122. The examiner can normally be reached on 8:30AM-5PM, Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Judy Nguyen can be reached on (571) 272-2258. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



CHRISTOPHER MAHONEY  
PRIMARY EXAMINER